UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

Date: September 9, 2010

Mr. Patrick B. Simmons
NCDOT Rail Division
1553 Mail Service Center
Raleigh, North Carolina 27699-1553

SUBJECT: Federal Tier II Draft Environmental Impact Statement (DEIS) and Draft Section 4(f) Evaluation for the Southeast High Speed Rail (SEHSR), Richmond, Virginia to Raleigh, North Carolina; N.C. State Project No.: 9.9083002; FRA-D40344-00; CEQ No.: 20100201

Dear Mr. Simmons:

The U.S. Environmental Protection Agency (EPA) Regions 4 and 3 have reviewed the subject document and are commenting in accordance with Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA). We are providing cooperating agency input for your consideration. In addition, EPA also included technical review comments from the Centers for Disease Control and Prevention (CDC) under a 2010 Partnership Agreement with EPA and on behalf of the Department of Health and Human Services (DHHS) under Section 102(2)(C) of NEPA. The Federal Railroad Administration (FRA), North Carolina Department of Transportation (NCDOT) Rail Division and the Virginia Department of Rail and Public Transportation (DRPT) are proposing to make rail improvements for an approximate distance of 162 miles between Richmond, Virginia and Raleigh, North Carolina.

EPA Regions 3 and 4 provided comments on the Final Tier I Environmental Impact Statement (FEIS) in 2002. EPA Region 4 also provided review comments on the Preliminary Draft EIS for Tier II on December 18, 2009. EPA and CDC's technical review comments on the Tier II DEIS are attached to this letter (See Attachment A). Specific advisory comments on the Environmental Justice analysis contained in Chapter 4 are also attached to this letter (See Attachment B).

EPA rated the Tier II DEIS as 'Environmental Concerns' (EC-2) indicating that the review identified some environmental concerns requiring potentially minor changes to the preferred alternative or the application of mitigation measures that can reduce environmental impacts. The review disclosed the opportunity for possible avoidance and minimization measures and mitigation measures related to wetland and stream impacts, water quality, and environmental justice and community health issues. The '2' rating indicates that DEIS information and environmental analysis requires some additional information and clarification, including wetland and stream impacts, Section 303(d) listed impaired waters, socio-economic and community health issues, and a re-assessment of potential minority and low-income population impacts.

Overall, EPA supports the development of additional mass transit options for the populations in Virginia and North Carolina because it provides an alternative to the sole reliance on highways for transportation demand. We also support the proposed project's purpose and need and detailed study alternatives. With appropriate disclosure and proper mitigation, this project should result in fewer adverse impacts. EPA recommends that all of the technical comments in the attachments be addressed in a Final EIS (FEIS). Furthermore, all relevant environment impacts that have not been disclosed in this document or covered in the FEIS should be addressed in additional NEPA documentation prior to the issuance of a Record of Decision (ROD).

Should you have any questions concerning this letter, please feel free to contact Mr. Christopher Militscher of my staff at (919) 856-4206, or by e-mail at militscher.chris@epa.gov. We appreciate the opportunity to comment on the proposed SEHSR project.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office

cc: B. Okorn, USEPA Region 3
A. Dannenberg, CDC
S. Kennedy, CDC

ATTACHMENT A

Tier II Draft Environmental Impact Statement
Southeast High Speed Rail – Richmond, VA to Raleigh, NC
FRA-D40344-00

Purpose and Need for the Proposed Project

EPA and CDC generally support the purpose and need for the Southeast High Speed Rail (SEHSR) project from Richmond, VA to Raleigh, NC. Section 1.2 of the DEIS identifies other current and planned projects for the entire Washington, D.C. to Charlotte, N.C. corridor.

Detailed Study Alternatives

The DEIS identifies 3 rail alignments (Detailed Study Alternatives) each for the portions in Virginia (i.e., VA1, VA2 and VA3) and for North Carolina (i.e., NC1, NC2 and NC3). The DEIS does not evaluate the impacts with the specific rail stations. Section 2.2.4 indicates that specific station locations will be determined in the future by the municipalities and appropriate levels of environmental documentation will be undertaken at that time. The DEIS does address where general station locations might be, including Richmond, VA, Petersburg, VA (Ettick and 3 alternative station locations), La Crosse, VA, Henderson, NC and Raleigh, NC. Servicing the SEHSR long-term and meeting future ridership demands appears to depend on these stations. These stations may have an impact on air quality, community resources, land use, stormwater management, etc. Low-impact development practices, as well as 'Green building' initiatives, should be considered during planning and design. EPA requests that all of the potential human and natural resource impacts from these stations are addressed in future NEPA documentation.

Section 2.4 of the DEIS discusses the Multiuse Greenway Concept and that the exact location of it will not be determined until the preferred alternative for the SEHSR project is selected. A separate decision document (e.g., Finding of No Significant Impact) is expected to be prepared for the Greenway Concept. The associated impacts for the Greenway Concept are proposed to be documented in the FEIS. EPA requests that the environmental analysis and impact disclosure be addressed in the FEIS and that consideration should be given to incorporate this information into the SEHSR project. As a result, additional NEPA documentation will not be required.

Page 2-56 of the DEIS included a discussion of impact evaluation for the 30-foot trail greenway on 60-foot of right of way. The width of the trail itself is proposed at 10 feet. Each section of trail is independently managed and representative of the needs of its respective region. The Multiuse Greenway Concept may be incorporated into the East Coast Greenway. EPA and CDC request that several environmental enhancements be considered in the development of the SEHSR's Multiuse Greenway Concept trail, including the use of renewable materials for rural sections (e.g., Wood-chip based), an invasive plant species management plan that avoids the excessive use of herbicides, and

appropriate 'solar' lighting in more urbanized settings. Safety features that minimize conflicts between the bicycle and pedestrian use and the adjacent high-speed rail should be considered during FRA, USDOT and municipalities final planning and design.

Human Environment Impacts

Minority and Low-Income Populations: Environmental Justice

The discussion in Section 4.11.5 on Executive Order 12898, Environmental Justice (EJ) should be revised to the actual language in the order that can be found at http://ejnet.org/ej/execorder.html. The following statement on Page 4-118 needs to be re-considered or fully explained in the FEIS: *As shown in Tables 3-20 and 3-21 in Chapter 3, there are no concentrations of Hispanic populations in the study area; thus, the analysis of racial and ethnic minorities focuses on race only*. The Executive Order references minority populations and low-income populations. Hispanic populations are minority populations. The DEIS EJ analysis should be performed with regard to all minority and low-income populations.

The tables found in the FEIS do not appear to be consistent. The application of the EJ criteria using the 50% affected area or the greater than 10% threshold for the appropriate unit of geographic analysis does not appear to be consistent with CEQ's *EJ Guidance Under NEPA*. The CEQ guidance states that minority populations should be identified where "either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis." It appears that in some cases both procedures are used for a single analysis. However, Brunswick County (VA) which is 54% minority and therefore exceeds the first criteria is not included as an area of potential EJ concern. EPA recommends that it be considered an area of EJ concern in the FEIS. In some cases, it appears that minority communities in the study area are not flagged as being areas of EJ concern because they do not exceed the county average by more than 10%. Because these communities are more than 50%, FRA should identify them as communities with potential EJ concerns. The DEIS identifies the State of Virginia as being 28% minority. Areas within the project study area that meet the 50% affected area criteria should be identified as areas of EJ concern.

The tables on Pages 4-121 to 4-123 need to be clarified in the FEIS. The EJ analyses in these tables are presented as either minority or low-income communities. If they meet either criterion, they are considered to be areas of potential EJ concern. All EJ communities should be evaluated for potential impacts. For additional advisory comments on EJ that should be addressed in the FEIS, please see Attachment B.

Community Resources: Demographics and Public Educational Facilities

According to Table 3-23 (pg 3-67), over 18% of the population in the Colonial Heights study area in Virginia is 65 years or older compared to 11.2% statewide. The population of resident's age 65 or older in the study area in Mecklenburg, Virginia is 17.8% compared to 11.2% statewide. Population projections in the US show a rapidly growing population of those ages 65 and older with many living below or near the poverty line, especially in minority populations (DHHS/AOA, 2010; DHHS/AOA(b), 2010). Health and social impacts due to changes in transportation systems and local roadway connectivity may be more severe in older populations who rely more heavily on pedestrian infrastructure and/or transit (Balfour and Kaplan, 2002). The Community Resources Section 3.11.1.3 describes the age of the population, but the DEIS does not assess potential impacts to this population in the Environmental Consequences section related to Community Resources (i.e., Section 4.11). The assessment of how vulnerable populations, such as the elderly, may or may not be impacted by the proposed high-speed rail project should be addressed in the FEIS.

On Page 3-93 of the DEIS, Forest Pines Drive Elementary is identified as being in the project study area. The school is located on East Perry Avenue in Wake Forest, but the closest access road crossing the existing corridor near the school appears to be either at Brick Street or East Cedar Avenue (See Map #135 of 151 from Appendix Q). The map and the narrative on page 3-93 needs to be consistent in FEIS.

Socio-economic Issues

Section 4.11.1 provides a general assessment of the potential socio-economic benefits of the proposed project to the impacted communities but does not provide as much detail of the potential socio-economic consequences. Socio-economic impacts can affect the health of communities and individuals. The effect of increased rail-related activity on residential property values appears to be impacted either positively or negatively by a number of factors including proximity to tracks and changes in volume of activity such as the number of trains per day (Simons, 2004) as well as accessibility and/or proximity to rail stations (Diaz, nd). Communities without a rail station are likely to be disproportionately impacted by this project. This concern is mentioned in Sections 4.11.2.1.1 and 4.11.2.1.2 (Page 4-67), but a more robust assessment of any potential economic consequences is not included. For communities without rail station/stops, where rail activity will be re-introduced after having been absent, and where rail activity increases, potential socio-economic consequences should to be considered and more fully assessed in the FEIS.

Section 4.11.2.1.2 of the DEIS discusses 'Neighborhood Disruptions'. On Page 4-68, the DEIS notes that residents and businesses [within the communities not currently living with an active rail line] could experience a sense that their community is being bisected by the new active rail line and that previously unencumbered access would now only be possible at designated bridges and underpasses. The DEIS also notes that

community travel patterns will not be substantially altered because consolidated crossings are designed to be no more than one mile apart from each other.

However, changes to the pedestrian environment can affect health outcomes and health determinants in a variety of ways, including but not limited to injury rates, physical activity levels, and accessibility. Rural residents are more likely than urban or suburban individuals to report barriers to physical activity, including barriers in the pedestrian or built environment (Parks, 2003). For example, long distances to schools are a primary barrier to walking (Dellinger, 2002). Impacts to the pedestrian environment occur at intervals less than 1 mile. **Impacts to the pedestrian environment should be considered in ¼ of mile increments, which is the more commonly used measure. Such impacts to the human environment ought to be considered separately from impacts to driving patterns and traffic in the assessment of impacts to the transportation network.**

Section 4.11.2.2 includes information on the impacts from changes to the transportation network. The DEIS assesses potential impacts from changes to the transportation network by tabulating rail crossing consolidations by type and section (Pages 4-70 to 4-74) and then describes impacts to specific communities. According to the DEIS between 56 and 64 public crossings will be relocated due to crossing consolidations, two pedestrian-only crossings will be maintained, and eight to nine new pedestrian-only crossings will be built. It is not clear which of the existing bridges/underpasses [that will be maintained] or which of the new bridges/underpasses [that will be built] have pedestrian or bicycle facilities (e.g., sidewalks, ramps, stairs, bike lanes, etc.). **Including this information is important in the assessment of impacts to the transportation network and ought to be considered in the FEIS. We recommend that all new crossings [not specifically identified as pedestrian-only crossings] follow a 'Complete Streets' model aligned with both Virginia and North Carolina *Complete Streets Policies*, so as to safely accommodate both pedestrians and bicycles.**

The DEIS includes general information that two ball parks will be displaced due to the proposed project alignment (Page 4-83). It is unclear how the loss of these community ball fields will potentially impact the amount of accessible greenspace and/or recreation facilities in this community. Loss of community access to greenspace and recreation facilities can impact community health and community cohesion (Sullivan, 2004; TPL, 2004). Furthermore, rural residents are more likely than urban or suburban individuals to report barriers to physical activity, including limited access to exercise facilities (Parks, 2003). It is recommended that the FEIS include a contextual description of these ball fields in relation to other community recreation facilities and greenspace/parks in the Wake Forest, N.C. area. The community's use of these fields should be described and, if appropriate, possible mitigation measures to ensure adequate community recreation and greenspace access.

Section 4.11.3 of the DEIS addresses Community Facilities and Services. Under 'Schools', the section assesses the alternatives in light of changes in accessibility and safety improvements due to crossing consolidations and elimination of at-grade crossings. On page 4-85 the DEIS states that: "*The negative impacts of potentially longer driving distances to cross the rail line would be minimal and offset by the benefits gained in safety*

and unimpeded access." This statement does not take into consideration students and/or teachers who might walk (or bicycle) to school. Changes to the pedestrian environment can affect health outcomes and health determinants in a variety of ways, including but not limited to injury rates, physical activity levels, and accessibility. Rural residents are more likely than urban or suburban individuals to report barriers to physical activity, including barriers in the pedestrian or built environment (Parks, 2003). For example, long distances to schools are a primary barrier to walking (Dellinger, 2002). The importance of pedestrian access to schools may differ amongst the various locations/study areas, but should be considered separately from auto access or driving distances.

Forest Pines Drive Elementary is noted to exist in Wake Forest, N.C. at 530 E. Perry Avenue. This school, and any related impacts due to rail crossing consolidation, is not included in the Environmental Consequences chapter, Section 4.11.3.1, Table 4-28, along with the other schools. In Table 4-28 on Page 4-88, impacts to Wake Forest Elementary include the closing of the at-grade crossing on East Elm Street. This crossing at Elm Street provides the most direct access from the school to the business district on the east side of the tracks. With the current consolidation plan, crossings would be realigned at Roosevelt Avenue and Holding Avenue, each of which is approximately 1,750 feet from the current crossing at Elm St. While this distance might seem insignificant to most drivers this adds almost 2/3 of a mile for a pedestrian-trip to access either the school or the business district just across the tracks. Because this area appears to be fairly congested (population and development) and the opportunity for children to walk to school is evident, **we recommend that FRA and other transportation agencies consider a pedestrian crossing be considered for the Elm Street crossing**. Similarly, the FEIS should also consider pedestrian access to places of worship and how the proposed project might alter current patterns and use.

On Page 4-107 of the DEIS, it is unclear which crossings would be closed due to consolidation under alternatives NC1/3 or NC2. For the Ridgeway Volunteer Fire Department the notable difference in 5-minute response coverage areas between the No Build versus Build scenarios is of potential concern. Until the budgeted satellite facilities in Warren County (Cited on Page 4-108) are built, further impeding emergency response times in this area is not recommended. It is recommended that different locations for crossing consolidations be assessed to increase the 5-minute response coverage area in the Build scenarios for this community and that the results from such an assessment be included in the FEIS.

Section 4.11.6 addresses Relocations and Associated Right of Way Costs and provides a summary of the state DOT relocation policies within the project areas as well as the number of residential and business relocations by SEHSR project section and alternative (pages 4-130 and 4-131). The number of potential residential relocations proposed for this project is not negligible. Potential impacts to the human environment from inadequate housing can include crowding and increased disease transmission, a loss of protective social connections, and general declines in health (Bashir, 2002; Fullilove, 2004). This section of the DEIS does not assess the availability of comparable replacement properties in the project areas. It is recommended that the FEIS impact

analysis include a general survey of available comparable replacement properties (e.g., average local rental unit vacancy rates and average number of active residential and commercial real estate listings) to provide a description of typical availability by project section. Table 4-35 is not totaled for each of the alternatives (VA1, VA2 and VA3 and NC1, NC2 and NC3). EPA and CDC note that number of expected relocations for each alternative appears to be the same or of similar magnitude. However, it would be helpful to discern numerically if there are any differences between the alternatives. Alternative VA1, VA2 and VA3 have 124/30, 119/19, and 124/30, residential and business relocations, respectively. Alternative NC1, NC2 and NC3 have 97/51, 105/48, and 91/81 residential and business relocations, respectively. It is important to note that VA2 has fewer residential and business relocations overall than either VA1 or VA3. Alternative NC3 has the least residential relocations (91) but the greatest number of business relocations (81). Furthermore, 54 of the 81 business relocations for NC3 all occur in Segment V in the City of Raleigh. There is no further description of the magnitude or intensity of this potential impact. The FEIS should include an analysis of the potential Regional economic impact associated with the different alternatives and their business impacts (e.g., Number of employees, opportunities for relocation, etc.).

Farmland Impacts

Section 4.3 addresses Prime and Other Important Farmlands. In the analysis of environmental consequences to prime and other important farmlands the narrative notes that the NRCS did not provide the Land Evaluation Criterion Values for project sections AA through C requested by September of 2009. The DEIS further notes that the 45-day review period had passed and, therefore, these sections were assumed to require no mitigation for farmland losses. The statement on Page 4-17 concerning 'no compensation' for farmland loss is also not believed to be accurate. As with any business, active farmlands would still potentially qualify for compensation. These should be verified by the NRCS in the FEIS.

Page 3-76 of the DEIS states that Agriculture is an important element of the economies of both Virginia and North Carolina. Specifically noted are Dinwiddie County, VA and Warren County, NC, where agriculture sales amount to 23% of total sales within these counties. Additionally, it states that 'agri-tourism' is the most common tourism activity in Franklin County, NC. Table 4-9 includes the impacts of the three alternatives by State and the prime and State important farmland for each section of the project. Total impacts (rounded to a tenth of an acre) for each alternative and each State is not included and should be addressed in the FEIS. EPA recognizes that prime farmland and other impacts for each section are included in the executive summary tables (e.g., ES-9). However, it is difficult to make a comparison between the alternatives (i.e., VA1, VA2, VA3, NC1, NC2, and NC3) without providing the appropriate totals. The FEIS should include this information.

Impacts to prime and State important farmland should be avoided and minimized to the extent practicable. The transportation agencies should also consult with the Virginia Department of Agriculture and Consumer Services and the North Carolina Department of

Agricultural and Consumer Services for other applicable requirements concerning farmlands (e.g., In North Carolina, the Voluntary Agricultural District program) and appropriate compensation proposed for impacted prime and State important farmlands.

Noise and Vibration Impacts

Section 4.7 of the DEIS explains in depth the criteria used for determining noise and vibration impacts within the project area that will result from the proposed project. The DEIS includes an analysis of projected Noise Impacts in Table 4-16 and projected Vibration Impacts in Table 4-18. These tables summarize potential impacts for each section alternative. Noise and vibration impacts not only impact the socioeconomic well-being of neighborhoods, they also impact human health outcomes (Evans, 2004). Some populations are particularly sensitive to noise and/or vibration impacts. There appears to be severe noise impacts anticipated in many section alternatives (in Tables 4-16), but it is unclear what particular populations will be impacted by this noise. It is not possible to determine if specific or vulnerable populations will bear more or less of the potential environmental consequences from noise impacts. It is recommended that the FEIS include in the analysis of noise impacts a clear characterization of the populations impacted within each project segment and/or alternative. Any mitigation measures developed should consider the specific population for which they are being developed so as to more effectively protect public health and well-being and promote environmental justice. Likewise, for vibration impact mitigation development, specific population characterization should to be considered by FRA, where applicable.

Mobile Source Air Toxics (MSATs)

Sections 3.6.1.6, 4.6.2 (Locomotive Operations) and 4.6.5 (Highway Vehicle Operations) and Appendix P generally address potential MSAT issues. One obvious deficiency in these sections is the discussion and identification of potential near-roadway/near-railway sensitive receptors, such as day care facilities, schools, hospitals and nursing homes. If there are no existing or future near-roadway/near-railway sensitive receptors, there would not be a need to perform any type of qualitative or quantitative analysis regardless of the Federal Highway Administration (FHWA) guidance criteria.

While EPA does not anticipate that MSAT impacts to be significant from the standpoint of the current scope of the proposed high speed rail improvements as well as from roadway access changes, the FEIS might include an analysis of sensitive receptors that are near the proposed improvements and what changes in traffic patterns might occur at these locations. The FEIS might also indicate the relative significance of these changes in relation to the estimated existing MSAT emissions conditions.

Mitigation During Construction and Operation

Under Sections 4.7.3.1 and 4.7.3.2 of the DEIS, EPA and CDC recommend that the concept of a community liaison program should be developed and implemented during construction and that reducing noise and vibration impacts for long-term operations should be given full consideration by the transportation agencies. The use of building insulation and noise barriers should continue to be evaluated under current FRA other transportation agency criteria. FRA, NCDOT and DRPT should continue to coordinate with impacted receptors, local community officials and other interested parties to protect public health and wealth. This coordination should be documented in the FEIS. Any environmental commitments identified during additional NEPA planning and final design efforts for the preferred alternative should be included in the Record of Decision (ROD) for the proposed project.

References:

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Natural Resources Impacts

Jurisdictional Streams and Wetlands

Sections 3.1, 4.1.1 and Appendix H provide information on jurisdictional streams and surface waters, drainage basins and related information. The FEIS should identify if the streams are perennial, intermittent or ephemeral. Tables 4-1 and 4-2 provide information of the potential information to jurisdictional streams for the different alternatives in Virginia and North Carolina. Of the totals provided in the tables, the linear feet of impact should be identified in the FEIS to include the quantification of impact to 303(d) listed impaired waters (from Appendix H) and the cause(s) of the water impairment. Section 4.1.1.2 includes impacts to riparian buffers and other jurisdictional waters (e.g., Lakes, ponds and reservoirs). Water supply reservoirs should be further identified and potential impacts detailed in the FEIS. The Virginia minimum/maximum of stream impact ranges between 27,304 and 31,163 linear feet. The North Carolina minimum/maximum of stream impact ranges between 11,774 and 18,292 linear feet. The DEIS sections should have clearly described how impacts are being calculated (e.g., Proposed right of way, construction limits plus 25 feet, etc.). For the Tar-Pamlico alternatives NC1, NC2 and NC3, the stream impact numbers do not appear to be accurate for the minimum/maximum (i.e., 5,330, 7,025 and 7,739 linear feet, respectively). Similarly, the stream impact numbers for the Neuse watershed in Table 4-2 also appear to be inaccurate (i.e., 5,238, 4,211 and 5,082 linear feet). All of the impact numbers presented in the tables should be re-calculated and confirmed in the FEIS. The FEIS should provide this information as well as the relevant avoidance and minimization efforts. Referring to Appendix H, the transportation agencies should explain the VA classification and special standard designation.

According to EPA's estimate, 303(d) listed impacts for Virginia and North Carolina streams from Appendix H are approximately 14,960, 15,520, and 15,001 linear feet for VA1, VA2 and VA3, respectively, and 849, 849, and 664 linear feet for NC1, NC2 and NC3, respectively. For Virginia, the potential impacts to 303(d) listed streams is relatively substantial (i.e., 2.83, 2.94 and 2.84 miles, respectively) and EPA requests that FRA consider very pro-active avoidance and minimization efforts in these impaired watersheds as well as the most stringent Best Management Practices (BMPs) for stormwater management. The DEIS identifies two primary avoidance and minimization measures for reducing jurisdictional impacts, including reducing fill slopes and the conservative use of culverts.

Once the preferred alternative is selected, EPA recommends that FRA begin the evaluation of bridging versus culverts during the final design process. FRA should seriously consider the use of bridges over culverts for major drainage structures (e.g., Greater than or equal to 3-barrel reinforced concrete box culverts – RCBCs) and/or where there are potential floodplain/floodway issues associated with crossing. The discussion of avoidance and minimization measures used to reduce impacts to streams, wetlands and other jurisdictional waters from Section 4.1.6 should be more robust and site specific once the preferred alternative is selected. Please include other appropriate measures such as

sequencing, time-of-year restrictions for sensitive ecosystems, engineering controls, monitoring, and adaptive management techniques. The FEIS should further discuss how the proposed project and associated activities will not contribute to additional impairment of the 303(d) listed streams.

Section 4.1.1.2 includes information on Tar-Pamlico and Neuse Riparian buffers and waters subject to the Chesapeake Bay Preservation Act (CBPA). Table 4-3 includes the riparian buffer impacts (in square feet) to the two different N.C. zones for the different alternatives, NC1, NC2 and NC3. According to Pages 4-4 and 4-5, railroads and public roads are exempt from the requirements of the CBPA. Generally, EPA environmentally prefers the alternatives that have the least impact to waters of the U.S.

Information concerning Wild and Scenic Rivers is includes in Sections 3.1.4 and 4.1.4. The James River, Nottoway River, Appomattox River, and Meherrin River are Virginia Scenic Rivers with outstanding remarkable values (ORV). In North Carolina, the Tar River is listed on the National Rivers Inventory (NRI). FRA proposes to minimize new bridge construction by limiting the design to a single rail line or using the existing structures for the crossing of these rivers.

Jurisdictional wetland impacts are specifically identified in Tables 4-6 and 4-7. For Virginia, Alternative VA2 has substantially more wetland impact than either VA1 or VA3. The minimum/maximum numbers for the Chowan watershed in Table 4-6 do not appear to be accurate. For VA1, the impact is 9.46 acres. For VA2, the impact is 17.74 acres. For VA3 the impact is 9.5 acres. The difference in the minimum/maximum for the impacted wetlands in North Carolina is also potentially substantial (i.e., 1.65 acres versus 5.31 acres). The minimum impact number for the Neuse watershed is not 0.25 acres but 0.27 acres. All of the totals and calculations presented in the DEIS should be reaffirmed for the FEIS. The DEIS does not provide a specific identification of the function or quality of the wetlands being impacted. For North Carolina jurisdictional wetlands, the FRA should identify and provide the North Carolina Division of Water Quality (NCDWQ) score or the North Carolina Wetlands Assessment Methodology (NCWAM) scoring in the FEIS.

In general, FRA should identify any special wetland type system or high quality wetland system that might be potentially impacted such as a headwater system or Cypress-gum forest. Temporary and permanent impacts should also be identified and disclosed during the final NEPA process and during the Section 404 permitting process. The issue of remnant wetland systems that are not directly impacted from proposed dredge and fill activities should also be discussed during future Section 404 coordination with resource and permitting agencies. Regarding the maps in Appendix Q, the Transportation agencies should confirm that all proposed impacts to jurisdictional resources are identified and included in the appropriate tables in the FEIS.

All jurisdictional delineations should be updated and confirmed with the U.S. Army Corps of Engineers (USACE) and included in the FEIS for the preferred alternative. EPA understands that National Wetlands Inventory (NWI) mapping can be potentially inaccurate. The transportation agencies need to confirm these differences between the NWI mapping and the delineated jurisdictional mapping efforts in the FEIS.

Compensatory mitigation for jurisdictional impacts to waters of the U.S. is discussed on Page 4.1.6.3 of the DEIS. FRA should immediately begin consultation with the respective regulatory agencies once a preferred alternative is identified and more accurate impact numbers are verified with additional final design efforts. Estimated compensatory mitigation needs should be provided to the N.C. Ecosystem Enhancement Program as soon as possible following the identification of the preferred alternative. Because there are no mitigation banks currently available in the Roanoke Rapids (03010106) hydrologic unit (HU), the transportation agencies should also begin immediate coordination with the regulatory agencies for compensatory mitigation of the impacts in that watershed. To be consistent with the watershed approach that also includes permittee-responsible mitigation, EPA recommends identifying and prioritizing the immediate and long-term aquatic resource needs within the impacted watersheds. This information will be useful in determining the approach to compensatory mitigation and may require a combination of on-site and off-site mitigation. The transportation project team should work with EPA and other state and federal agencies to develop an acceptable compensatory mitigation plan, including the identification of potential on-site mitigation opportunities. FRA should also consider evaluating the use of the 12-digit HUC for compensatory mitigation needs.

Regarding other general aquatic resources issues, please provide more detailed information in the FEIS concerning the potential impacts to other jurisdictional waters (such as lakes, ponds and reservoirs). EPA requests that FRA consider the need for compensatory mitigation for these resources as well, and provide the rationale supporting the determination. For the FEIS, please elaborate on the construction practices that will be implemented to protect stream bottom habitat and the integrity of riparian buffers. Confirm that sediment and erosion control measures will not be placed in wetlands or streams and that outfalls will be designed to prevent adverse impacts to the receiving stream or wetland. For additional water quality issues, activities resulting in impacts include fertilizer and pesticide application during re-vegetation. In the FEIS or Record of Decision (ROD), please provide detailed application program information that fully explains the need to use these agents, the agents to be used, frequency, timing, qualification of applicators, etc. The FRA should also comply with the requirements under Executive Order 13112 on Invasive Species. On-site mitigation, landscaping for future station locations, and other associated activities should prevent the establishment and/or spread of invasive plant species and native plants should be utilized.

Terrestrial Forests

Terrestrial forest community impacts are detailed in Section 4.10.1.1 of the DEIS. Table 4-24 provides the potential project impacts to natural communities in acres for each section of the project under each alternative. However, the total impacts to terrestrial communities for each alternative are not summarized in the table. Furthermore, the table lists maintained/disturbed areas that are not necessarily 'natural communities'. The table does not define how the impacts were calculated (e.g., Right of way versus construction limits). Efforts to minimize clearing should be made to minimize impacts to terrestrial forest communities. (Note: Removed Page Break during PDF Redo)

Threatened and Endangered Species

Section 4.10.2.1 addresses issues associated with the Endangered Species Act. There appear to be several protected species that are undergoing informal Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS), including the Roanoke logperch, Dwarf wedgemussel and the James River spinymussel. EPA defers to the USFWS and State wildlife agencies on these issues but recommends that these unresolved issues be addressed by FRA prior to the issuance of the FEIS.

ATTACHMENT B
Tier II Draft Environmental Impact Statement
Southeast High Speed Rail – Richmond,VA to Raleigh, NC
FRA-D40344-00

Advisory Comments on Environmental Justice

In addition to those Environmental Justice (EJ) issues identified in Attachment A, the FEIS should also consider the following assessment and evaluation:

Chapter 4 of the DEIS uses the following criteria to define and identify low income populations, "*Low-Income - Defined by the US Department of Transportation (USDOT) Order on Environmental Justice, low-income refers to a person whose median household income is at or below the Department of Health and Human Services poverty guidelines. The data available for populations on a detailed geographic basis is the poverty threshold, which is related to the poverty guideline as explained in the Tier I EIS for this project; consistent with the Tier I EIS, the poverty threshold is used for this analysis.*". This seems to indicate that the threshold values in fact are the poverty threshold. The DEIS did not specifically identify this value. It is not listed in Table 4-34 in Chapter 4. The table lists the percentage below poverty for each county and community in the study area. If those values are being used as the thresholds: Chesterfield, VA, Colonial Heights, VA, Dinwiddie, VA, and Brunswick, VA should be identified as areas of concern, because these areas all have low-income population percentages that exceed the county thresholds. For example, Brunswick, VA includes a low-income population of 18% and was not identified as an area of concern. Alberta, VA, with a low-income population percentage of 16% was identified as such, even though they are both in Brunswick County with a low-income population percentage of 17%. From the analysis provided in the DEIS, the application of the criteria does not appear to be consistent.

Questions arise related to the appropriate use of threshold values. An examination of the results of the evaluation process leaves a number of questions and concerns that need to be addressed in the FEIS. First, the assessment process seems to be highly subjective. Even though guidelines are provided for how assessment and identification of low-income and minority populations is to be conducted, the results do not seem to follow those guidelines. Clearly, populations that are more than 50% minority are not identified as communities of concern. In looking at the make up of the population of this country, and in looking at the populations of the states, it seems unreasonable to fail to identify any community that is more than 50% minority as not being a community of Environmental Justice concern. The CEQ guidance suggests that if the first benchmark is not met, then the second benchmarking technique should be employed. EPA recommends that conservative approaches to identifying 'at risk populations' should be employed in the EJ analysis. The approach taken in the DEIS does not appear to be conservative, and could potentially put additional persons 'at risk' from the negative environmental impacts from the proposed project.

The assessment criteria chosen to identify the low-income populations in the study are vague and not equally applied. The assessment does not identify what the relevance the state percentages of minority and low-income populations play in the overall analysis. Many of the communities in the study have minority and/or low-income populations that exceed the state averages. It is not clear if this information was used in the assessment and if not, why was the information included in the DEIS. The FEIS should clearly identify the relevance of the state percentage, the county percentage, the project study area percentage and the potential impacted minority and low-income residents. All comparative and relevant data should be used in the FEIS re-assessment.

The potential impacts on the minority and low-income populations in the study area should be fully disclosed. It appears that determinations were made based upon the use of alignments associated with previous construction and existing infrastructure. Any potential additional construction activities associated with the proposed project, including station locations should be included in the FEIS re-assessment. Based upon the re-assessment, the actual negative or adverse impacts to the community should be reasonably identified. It is assumed that the project will be beneficial to all parties in the project study area. A detailed socio-economic evaluation should be discussed in the FEIS to fully describe the claimed benefits. The FEIS re-assessment should fully address the issue of adverse and disproportional impacts to EJ communities in relation to documented benefits from the proposed project. The re-assessment should describe how the community is meaningfully being involved in the decision-making process. The re-assessment should also utilize more current U.S. Census data and other more recent socio-economic data sources.

From the table provided below, EPA suggests that practically all of the study areas listed below could indeed be identified as areas of concern.

Table 3-25
Virginia Localities and Study Areas - Income and Poverty

Location	Median Household Income Low* High*		Per Capita Income Low* High*		Below Poverty Level	Owner Occupied Housing	No Vehicle Household
Virginia	$46,677 (average)		$23,975 (average)		9.6%	68.1%	7.7%
Richmond	$31,121 (average)		$20,337 (average)		21.4%	46.1%	21.6%
Study Area	$9,583	$41,985	$4,182	$33,427	30.0%	36.7%	25.6%
Chesterfield	$58,537 (average)		$25,286 (average)		4.5%	80.9%	3.3%
Study Area	$20,893	$82,336	$6,148	$37,613	9.2%	70.9%	6.3%
Colonial Heights	$43,224 (average)		$23,659 (average)		5.5%	69.4%	5.9%

Study Area	$33,173	$38,500	$17,093	$25,661	7.4%	53.4%	7.8%
Peters-burg	$28,851 (average)		$15,989 (average)		19.6%	51.5%	20.9%
Study Area	$11,563	$40,820	$11,682	$23,474	16.4%	51.9%	14.8%
Dinwiddie	$41,582 (average)		$19,122 (average)		9.3%	79.2%	5.1%
Study Area	$31,923	$57,660	$14,736	$25,597	9.0%	76.5%	5.1%
Brunswick	$31,288 (average)		$14,890 (average)		16.5%	77.7%	11.6%
Study Area	$25,737	$40,500	$14,424	$17,471	15.6%	76.2%	13.1%
Mecklenburg	$31,380 (average)		$17,171 (average)		15.5%	74.3%	9.7%
Study Area	$25,729	$35,859	$12,211	$19,824	13.5%	82.3%	9.1%

Source: 2000 Census

*Of the Census block groups in the study area within the city or county.